

To: Damberg, Rich[Damberg.Rich@epa.gov]; Dunkins, Robin[Dunkins.Robin@epa.gov]; Costa, Allison[Costa.Allison@epa.gov]; Schrock, Bill[Schrock.Bill@epa.gov]
Cc: Lessard, Patrick[Lessard.Patrick@epa.gov]; Timin, Brian[Timin.Brian@epa.gov]
From: Houyoux, Marc
Sent: Thur 4/21/2016 2:27:15 PM
Subject: RE: PM2.5 rule: responses needed to comments on ammonia emissions

Rich,

I have already done this and I have draft responses ready. I just need to send these to you.

Marc

Marc Houyoux

EPA/OAQPS

919-541-3649

From: Damberg, Rich
Sent: Thursday, April 21, 2016 10:27 AM
To: Dunkins, Robin <Dunkins.Robin@epa.gov>; Costa, Allison <Costa.Allison@epa.gov>; Schrock, Bill <Schrock.Bill@epa.gov>
Cc: Lessard, Patrick <Lessard.Patrick@epa.gov>; Houyoux, Marc <Houyoux.Marc@epa.gov>; Timin, Brian <Timin.Brian@epa.gov>
Subject: PM2.5 rule: responses needed to comments on ammonia emissions

Robin, Allison, and Bill

We are now developing the Response to Comments document for the PM2.5 SIP Requirements rule. Our current schedule is to have a good first draft developed by May 5.

I am writing to request your help. We are hoping your group can be on point to provide us the first draft responses for the comments summarized below about the need for ammonia emissions methodologies.

I will give you access to our sharepoint site where you can review the specific comment letters if interested.

Please let us know if you have any questions.

Thanks,

Rich

=====

Comment: Several commenters (0082, 0086, 0111, 0115, 0117, 0122, 0126) encouraged the EPA to acknowledge and quantify uncertainties in both ammonia emissions inventories and inorganic particulate chemistry modules used to simulate PM_{2.5} formation from ammoniacal nitrogen and account for these uncertainties in attainment planning analyses. Commenters further urged the EPA to issue guidance regarding means to calculate ammonia emissions from animal and crop production that includes process-based considerations. Without such guidance, commenters stated estimates will vary widely between states, and there will be no clear means for reducing agricultural contributions to PM_{2.5} concentrations other than eliminating production capacity within nonattainment areas.

Response: Sent to Robin Dunkins, Allison Costa, and Bill Schrock

Comment: One commenter (0106) expressed concern about the lack of EPA approved methodologies to estimate ammonia emissions from dairies and urged the EPA to complete development of emissions estimating methodologies (EEMs) in adherence with the advice of the SAB panel and give states time to utilize these in their PM_{2.5} implementation plan development. Commenter stated that significant work has been conducted on dairy operations in California and work is under way on a process-based model approach for dairies which the EPA should take into consideration, because the National Academies of Sciences supported this type of approach in its report on CAFO emission factors in 2003. For states like California, which already regulate

AFOs and CAFOs through SIPs and state permits, commenter asserted the results of the EEMs will, at minimum, create a need to review those requirements in place and determine if revisions are necessary. Commenter stated the timing of the release of the EEMs has the potential to be disruptive to the PM_{2.5} implementation plan development; inventories, modeling, and precursor decisions could all be impacted by these EEMs and have significant economic impacts on dairy producers if emission factors currently in use are revised. Commenter stated the EEMs must be based on the physical and biological operations occurring at a facility and factor in local climate conditions and manure management at the site rather than on an empirical formula.

Response: Sent to Robin Dunkins, Allison Costa, and Bill Schrock

Comment: Several commenters (0082, 0086, 0111, 0115, 0117, 0119, 0122, 0126) stated that many states do not have reliable data for ammonia emissions related to fertilizer application from agricultural sources and added that “the lack of a method to estimate ammonia emissions from soil is probably the most significant information gap that exists for ammonia inventories in general” (Chinkin, 2003). Commenters believed this will lead to inequitable regulation of agricultural sources of ammonia between states and EPA regional offices as regulated entities struggle to provide the required emissions inventory data for nonattainment areas. One commenter (0119) expressed concern that as PM standards are tightened, there is the potential for more regulation of these sources without validated methodologies for estimating emissions from fertilizer application. The commenter (0119) stated that quantification of emissions from crop production will prove even more challenging. The commenter was concerned about the potential impact of regulation of ammonia under the CAA on fertilizer application which could not only have impact on individual growers but on the viability of the domestic and global food supply.

Response: Sent to Robin Dunkins, Allison Costa, and Bill Schrock

Comment: One commenter (0101) stated the EPA cannot move forward with SIP implementation requirements that implicate livestock and poultry farmers without the emissions factors derived from the National Air Emissions Monitoring Study (NAEMS) data. The commenter (0101) asserted states and farms are currently left with no better tools than the generalized tools that have imperfectly existed for the last decade or two. Two commenters (0086, 0101) stated that, while the EPA has had the opportunity to remedy uncertainty due to significant variables by developing more reliable emission estimation methodologies through the NAEMS, the EPA has not finalized any NAEMS results. Commenter (0101) stated that, not only is this technically unsound, the idea of moving forward on regulating livestock operations without the most critical tool for establishing requirements is a violation of the spirit of the

consent agreements and the NAEMS.

Response: Sent to Robin Dunkins, Allison Costa, and Bill Schrock

To: Houyoux, Marc[Houyoux.Marc@epa.gov]; Dunkins, Robin[Dunkins.Robin@epa.gov]; Costa, Allison[Costa.Allison@epa.gov]; Schrock, Bill[Schrock.Bill@epa.gov]
Cc: Lessard, Patrick[Lessard.Patrick@epa.gov]; Timin, Brian[Timin.Brian@epa.gov]
From: Damberg, Rich
Sent: Thur 4/21/2016 2:28:34 PM
Subject: Re: PM2.5 rule: responses needed to comments on ammonia emissions

Oh, that's great! Sorry for the mix-up everybody...

Rich

From: Houyoux, Marc
Sent: Thursday, April 21, 2016 10:27 AM
To: Damberg, Rich; Dunkins, Robin; Costa, Allison; Schrock, Bill
Cc: Lessard, Patrick; Timin, Brian
Subject: RE: PM2.5 rule: responses needed to comments on ammonia emissions

Rich,

I have already done this and I have draft responses ready. I just need to send these to you.

Marc

Marc Houyoux

EPA/OAQPS

919-541-3649

From: Damberg, Rich
Sent: Thursday, April 21, 2016 10:27 AM
To: Dunkins, Robin <Dunkins.Robin@epa.gov>; Costa, Allison <Costa.Allison@epa.gov>; Schrock, Bill <Schrock.Bill@epa.gov>
Cc: Lessard, Patrick <Lessard.Patrick@epa.gov>; Houyoux, Marc <Houyoux.Marc@epa.gov>; Timin, Brian <Timin.Brian@epa.gov>
Subject: PM2.5 rule: responses needed to comments on ammonia emissions

Robin, Allison, and Bill

We are now developing the Response to Comments document for the PM2.5 SIP Requirements rule. Our current schedule is to have a good first draft developed by May 5.

I am writing to request your help. We are hoping your group can be on point to provide us the first draft responses for the comments summarized below about the need for ammonia emissions methodologies.

I will give you access to our sharepoint site where you can review the specific comment letters if interested.

Please let us know if you have any questions.

Thanks,

Rich

=====

Comment: Several commenters (0082, 0086, 0111, 0115, 0117, 0122, 0126) encouraged the EPA to acknowledge and quantify uncertainties in both ammonia emissions inventories and inorganic particulate chemistry modules used to simulate PM_{2.5} formation from ammoniacal nitrogen and account for these uncertainties in attainment planning analyses. Commenters further urged the EPA to issue guidance regarding means to calculate ammonia emissions from animal and crop production that includes process-based considerations. Without such guidance, commenters stated estimates will vary widely between states, and there will be no clear means for reducing agricultural contributions to PM_{2.5} concentrations other than eliminating production capacity within nonattainment areas.

Response: Sent to Robin Dunkins, Allison Costa, and Bill Schrock

Comment: One commenter (0106) expressed concern about the lack of EPA approved methodologies to estimate ammonia emissions from dairies and urged the EPA to complete development of emissions estimating methodologies (EEMs) in adherence with the advice of the SAB panel and give states time to utilize these in their PM_{2.5} implementation plan development. Commenter stated that significant work has been conducted on dairy operations in California and work is under way on a process-based model approach for dairies which the EPA should take into consideration, because the National Academies of Sciences supported this type of approach in its report on CAFO emission factors in 2003. For states like California, which already regulate AFOs and CAFOs through SIPs and state permits, commenter asserted the results of the EEMs will, at minimum, create a need to review those requirements in place and determine if revisions are necessary. Commenter stated the timing of the release of the EEMs has the potential to be disruptive to the PM_{2.5} implementation plan development; inventories, modeling, and precursor decisions could all be impacted by these EEMs and have significant economic impacts on dairy producers if emission factors currently in use are revised. Commenter stated the EEMs must be based on the physical and biological operations occurring at a facility and factor in local climate conditions and manure management at the site rather than on an empirical formula.

Response: Sent to Robin Dunkins, Allison Costa, and Bill Schrock

Comment: Several commenters (0082, 0086, 0111, 0115, 0117, 0119, 0122, 0126) stated that many states do not have reliable data for ammonia emissions related to fertilizer application from agricultural sources and added that “the lack of a method to estimate ammonia emissions from soil is probably the most significant information gap that exists for ammonia inventories in general” (Chinkin, 2003). Commenters believed this will lead to inequitable regulation of agricultural sources of ammonia between states and EPA regional offices as regulated entities struggle to provide the required emissions inventory data for nonattainment areas. One commenter (0119) expressed concern that as PM standards are tightened, there is the potential for more regulation of these sources without validated methodologies for estimating emissions from fertilizer application. The commenter (0119) stated that quantification of emissions from crop production will prove even more challenging. The commenter was concerned about the potential impact of regulation of ammonia under the CAA on fertilizer application which could not only have impact on individual growers but on the viability of the domestic and global food supply.

Response: Sent to Robin Dunkins, Allison Costa, and Bill Schrock

Comment: One commenter (0101) stated the EPA cannot move forward with SIP implementation requirements that implicate livestock and poultry farmers without the emissions factors derived from the National Air Emissions Monitoring Study (NAEMS) data. The commenter (0101) asserted states and farms are currently left with no better tools than the generalized tools that have imperfectly existed for the last decade or two. Two commenters (0086, 0101) stated that, while the EPA has had the opportunity to remedy uncertainty due to significant variables by developing more reliable emission estimation methodologies through the NAEMS, the EPA has not finalized any NAEMS results. Commenter (0101) stated that, not only is this technically unsound, the idea of moving forward on regulating livestock operations without the most critical tool for establishing requirements is a violation of the spirit of the consent agreements and the NAEMS.

Response: Sent to Robin Dunkins, Allison Costa, and Bill Schrock

To: Schrock, Bill[Schrock.Bill@epa.gov]; Dunkins, Robin[Dunkins.Robin@epa.gov]
From: Vasu, Amy
Sent: Wed 4/27/2016 7:04:49 PM
Subject: Is this correct & acceptable? -- RE: By 2pm Wed -- please review WHI-011q -- Questions for the Record

Bill and Robin,

Is this version correct & acceptable?

EPA has been petitioned for a rulemaking under section 111 that air emissions from animal feed operations (AFO) may reasonably be anticipated to endanger public health and welfare, and therefore to regulate for methane, nitrous oxide, H₂S, PM, VOC and ammonia emissions, thus, warranting listing from concentrated animal feed operations (CAFOs), by listing CAFOs as a category of sources and setting CAA section 111 standards for new and existing facilities. The petition is currently on hold pending the outcome of a study into the quantity of emissions from AFO.

Should we also mention the petition filed by the Environmental Integrity Project in 2011 asked EPA to set health-based standards for ammonia?

Thank you.

Amy

~~~~~

*Amy B. Vasu*

*U.S. EPA / OAQPS*

*Sector Policies and Programs Division*

*email: vasu.amy@epa.gov*

*phone: 919.541.0107*

**From:** Schrock, Bill

**Sent:** Tuesday, April 26, 2016 2:37 PM

**To:** Dunkins, Robin <Dunkins.Robin@epa.gov>  
**Cc:** Vasu, Amy <Vasu.Amy@epa.gov>  
**Subject:** RE: By 2pm Wed -- please review WHI-011q -- Questions for the Record

Yea we can add PM and VOC too. I just copied the language from our petition table and for some reason it didn't include PM and VOC.

Bill Schrock  
U.S. EPA  
RTP, NC 27709  
(919) 541-5032  
(919) 541-3470 (fax)

**From:** Dunkins, Robin  
**Sent:** Tuesday, April 26, 2016 1:40 PM  
**To:** Schrock, Bill <Schrock.Bill@epa.gov>  
**Cc:** Vasu, Amy <Vasu.Amy@epa.gov>  
**Subject:** RE: By 2pm Wed -- please review WHI-011q -- Questions for the Record

The language sounds fine just one question. Did you intentionally leave out all the pollutants petitioned to be regulated under 111. I thought PM and VOCs were included on the petition.

Robin Dunkins, Group Leader

Natural Resources Group

OAR/OAQPS/SPPD Mail Code: E143-03

U.S. Environmental Protection Agency

Research Triangle Park, NC 27711

919-541-5335

[dunkins.robins@epa.gov](mailto:dunkins.robins@epa.gov)

**From:** Schrock, Bill  
**Sent:** Tuesday, April 26, 2016 1:23 PM  
**To:** Dunkins, Robin <[Dunkins.Robin@epa.gov](mailto:Dunkins.Robin@epa.gov)>  
**Cc:** Vasu, Amy <[Vasu.Amy@epa.gov](mailto:Vasu.Amy@epa.gov)>  
**Subject:** FW: By 2pm Wed -- please review WHI-011q -- Questions for the Record

Robin – They are asking for an update on all petitions so I would think we would say something about the petition to list CAFOs under section 111 since they list GHGs as one of the primary pollutants for control. Here is a draft writeup:

EPA has been petitioned for a rulemaking under section 111 that air emissions from animal feed operations (AFO) may reasonably be anticipated to endanger public health and welfare, and therefore regulate for methane, nitrous oxide, H<sub>2</sub>S and ammonia, thus, warranting listing animal feed operations as a stationary source. The petition is currently on hold pending the outcome of a study into the quantity of emissions from AFO.

Bill Schrock  
U.S. EPA  
RTP, NC 27709  
(919) 541-5032  
(919) 541-3470 (fax)

**From:** Vasu, Amy  
**Sent:** Tuesday, April 26, 2016 12:35 PM  
**To:** Dunkins, Robin <[Dunkins.Robin@epa.gov](mailto:Dunkins.Robin@epa.gov)>; Schrock, Bill <[Schrock.Bill@epa.gov](mailto:Schrock.Bill@epa.gov)>  
**Subject:** By 2pm Wed -- please review WHI-011q -- Questions for the Record

Robin and Bill,

Jenny Noonan asked if there is anything to add to that answer below on Ag or other petitions. Is there anything you'd recommend adding?

**WHI-011q** The agency has a number of petitions pending seeking additional regulation of greenhouse gases under other sections of the CAA, including Sections 108-110, 115, 211, 231, and other sections.

A. What is the status of each of these pending petitions?

B. Is the agency actively involved in settlement discussions relating to any these petitions? If yes, which petitions?

**WHI-011a** The EPA is currently reviewing a number of pending petitions regarding greenhouse gases. Of them, for a petition regarding regulating GHG emissions from aircraft under CAA Sec. 231, we have proposed a finding that such emissions endanger public health as well as released for public comment an Advanced Notice of Proposed Rulemaking. We are currently reviewing the comments on both of those to determine appropriate next steps. We are not actively engaged in settlement

Thank you.

Amy

~~~~~

Amy B. Vasu

U.S. EPA / OAQPS

Sector Policies and Programs Division

email: vasu.amy@epa.gov

phone: 919.541.0107

From: Noonan, Jenny

Sent: Monday, April 25, 2016 12:09 PM

To: Johnson, Yvonne W <Johnson.Yvonnew@epa.gov>; Vasu, Amy <Vasu.Amy@epa.gov>; McLamb, Marguerite <McLamb.Marguerite@epa.gov>; Keating, Martha <keating.martha@epa.gov>; Davis, Alison <Davis.Alison@epa.gov>

Cc: Culligan, Kevin <Culligan.Kevin@epa.gov>; Mills, Kathy <Mills.Kathy@epa.gov>; Long, Pam <Long.Pam@epa.gov>; Kornylak, Vera S. <Kornylak.Vera@epa.gov>; Morales, Mariel <Morales.Mariel@epa.gov>; Whitlow, Jeff <Whitlow.Jeff@epa.gov>; Ashley, Jackie <Ashley.Jackie@epa.gov>; Terry, Sara <Terry.Sara@epa.gov>; Friedman, Kristina <Friedman.Kristina@epa.gov>

Subject: Due Wed: Questions for the Record

Yvonne, Martha, Amy and Marguerite –

Attached please find Questions for the Record from a recent House E&C committee budget hearing. Folks in DC have helped out a lot with the answers by filling in approved text from fact sheets, testimony and recent letters. Would you take a look and add/subtract from the answers? Would you be able to send me your answers by 4pm on Wed?

Thanks,

Jenny

Alison – Would you be able to pitch in on an ICR question on page 6?

WHI-017q Recently the White House released a Joint Statement between the United States and Canada which indicated EPA “will begin developing regulations for methane emissions from existing oil and gas sources immediately and will move as expeditiously as possible to complete this process.”

A. Given EPA’s work on voluntary programs for existing oil and gas sector sources, when did the agency begin discussion of possible mandatory programs for these sources?

- B. Please provide the timeline for development of these regulations, including any information collection requests.
- C. Under what statutory authority does EPA plan to develop these regulations?
- D. What is the status of development of these regulations?
- E. Does EPA plan to propose or finalize regulations before the end of the Administration?
- F. Is EPA considering establishing cap-and-trade standards for methane similar to what the agency has done in the Clean Power Plan for the power sector?
- G. Is EPA considering setting individual state methane targets or budgets similar to what the agency has done in the Clean Power Plan for the power sector?
- H. Does EPA envision that it will be imposing “federal plans” on state oil and gas sectors to impose methane or greenhouse gas emissions trading like the Clean Power Plan?

WHI-017a [QUOTE FROM ICR FACTSHEET]

To: Schrock, Bill[Schrock.Bill@epa.gov]
From: Vasu, Amy
Sent: Wed 4/27/2016 7:40:21 PM
Subject: RE: Is this correct & acceptable? -- RE: By 2pm Wed -- please review WHI-011q -- Questions for the Record

Hi Bill,

Thank you for reviewing this. Letting HEID/AQPD address ammonia makes sense. I'll include the s.111 statement only.

Amy

~~~~~

*Amy B. Vasu*

*U.S. EPA / OAQPS*

*Sector Policies and Programs Division*

*email: vasu.amy@epa.gov*

*phone: 919.541.0107*

**From:** Schrock, Bill  
**Sent:** Wednesday, April 27, 2016 3:35 PM  
**To:** Vasu, Amy <Vasu.Amy@epa.gov>  
**Subject:** RE: Is this correct & acceptable? -- RE: By 2pm Wed -- please review WHI-011q -- Questions for the Record

Amy – Your re-write is correct. I assumed someone from AQPD would respond to the petition to list ammonia as a criteria pollutant.

Bill Schrock  
U.S. EPA  
RTP, NC 27709  
(919) 541-5032

(919) 541-3470 (fax)

**From:** Vasu, Amy

**Sent:** Wednesday, April 27, 2016 3:05 PM

**To:** Schrock, Bill <[Schrock.Bill@epa.gov](mailto:Schrock.Bill@epa.gov)>; Dunkins, Robin <[Dunkins.Robin@epa.gov](mailto:Dunkins.Robin@epa.gov)>

**Subject:** Is this correct & acceptable? -- RE: By 2pm Wed -- please review WHI-011q --  
Questions for the Record

Bill and Robin,

Is this version correct & acceptable?

EPA has been petitioned ~~for a rulemaking under section 111 that air emissions from animal feed operations (AFO) may reasonably be anticipated to endanger public health and welfare, and therefore to regulate for methane, nitrous oxide, H<sub>2</sub>S, PM, VOC and ammonia emissions, thus, warranting listing~~ from concentrated animal feed operations (CAFOs), by listing CAFOs as a category of sources and setting CAA section 111 standards for new and existing facilities. The petition is currently on hold pending the outcome of a study into the quantity of emissions from AFO.

Should we also mention the petition filed by the Environmental Integrity Project in 2011 asked EPA to set health-based standards for ammonia?

Thank you.

Amy

~~~~~

Amy B. Vasu

U.S. EPA / OAQPS

Sector Policies and Programs Division

email: vasu.amy@epa.gov

phone: 919.541.0107

From: Schrock, Bill
Sent: Tuesday, April 26, 2016 2:37 PM
To: Dunkins, Robin <Dunkins.Robin@epa.gov>
Cc: Vasu, Amy <Vasu.Amy@epa.gov>
Subject: RE: By 2pm Wed -- please review WHI-011q -- Questions for the Record

Yea we can add PM and VOC too. I just copied the language from our petition table and for some reason it didn't include PM and VOC.

Bill Schrock
U.S. EPA
RTP, NC 27709
(919) 541-5032
(919) 541-3470 (fax)

From: Dunkins, Robin
Sent: Tuesday, April 26, 2016 1:40 PM
To: Schrock, Bill <Schrock.Bill@epa.gov>
Cc: Vasu, Amy <Vasu.Amy@epa.gov>
Subject: RE: By 2pm Wed -- please review WHI-011q -- Questions for the Record

The language sounds fine just one question. Did you intentionally leave out all the pollutants petitioned to be regulated under 111. I thought PM and VOCs were included on the petition.

Robin Dunkins, Group Leader

Natural Resources Group

OAR/OAQPS/SPPD Mail Code: E143-03

U.S. Environmental Protection Agency

Research Triangle Park, NC 27711

919-541-5335

dunkins.robin@epa.gov

From: Schrock, Bill

Sent: Tuesday, April 26, 2016 1:23 PM

To: Dunkins, Robin <Dunkins.Robin@epa.gov>

Cc: Vasu, Amy <Vasu.Amy@epa.gov>

Subject: FW: By 2pm Wed -- please review WHI-011q -- Questions for the Record

Robin – They are asking for an update on all petitions so I would think we would say something about the petition to list CAFOs under section 111 since they list GHGs as one of the primary pollutants for control. Here is a draft writeup:

EPA has been petitioned for a rulemaking under section 111 that air emissions from animal feed operations (AFO) may reasonably be anticipated to endanger public health and welfare, and therefore regulate for methane, nitrous oxide, H₂S and ammonia, thus, warranting listing animal feed operations as a stationary source. The petition is currently on hold pending the outcome of a study into the quantity of emissions from AFO.

Bill Schrock
U.S. EPA
RTP, NC 27709
(919) 541-5032
(919) 541-3470 (fax)

From: Vasu, Amy

Sent: Tuesday, April 26, 2016 12:35 PM

To: Dunkins, Robin <Dunkins.Robin@epa.gov>; Schrock, Bill <Schrock.Bill@epa.gov>

Subject: By 2pm Wed -- please review WHI-011q -- Questions for the Record

Robin and Bill,

Jenny Noonan asked if there is anything to add to that answer below on Ag or other petitions. Is there anything you'd recommend adding?

WHI-011q The agency has a number of petitions pending seeking additional regulation of greenhouse gases under other sections of the CAA, including Sections 108-110, 115, 211, 231, and other sections.

A. What is the status of each of these pending petitions?

B. Is the agency actively involved in settlement discussions relating to any these petitions? If yes, which petitions?

WHI-011a The EPA is currently reviewing a number of pending petitions regarding greenhouse gases. Of them, for a petition regarding regulating GHG emissions from aircraft under CAA Sec. 231, we have proposed a finding that such emissions endanger public health as well as released for public comment an Advanced Notice of Proposed Rulemaking. We are currently reviewing the comments on both of those to determine appropriate next steps. We are not actively engaged in settlement

Thank you.

Amy

~~~~~

*Amy B. Vasu*

*U.S. EPA / OAQPS*

*Sector Policies and Programs Division*

*email: [vasu.amy@epa.gov](mailto:vasu.amy@epa.gov)*

*phone: 919.541.0107*

**From:** Noonan, Jenny

**Sent:** Monday, April 25, 2016 12:09 PM

**To:** Johnson, Yvonne W <[Johnson.YvonneW@epa.gov](mailto:Johnson.YvonneW@epa.gov)>; Vasu, Amy <[Vasu.Amy@epa.gov](mailto:Vasu.Amy@epa.gov)>; McLamb, Marguerite <[McLamb.Marguerite@epa.gov](mailto:McLamb.Marguerite@epa.gov)>; Keating, Martha <[keating.martha@epa.gov](mailto:keating.martha@epa.gov)>; Davis, Alison <[Davis.Alison@epa.gov](mailto:Davis.Alison@epa.gov)>

**Cc:** Culligan, Kevin <[Culligan.Kevin@epa.gov](mailto:Culligan.Kevin@epa.gov)>; Mills, Kathy <[Mills.Kathy@epa.gov](mailto:Mills.Kathy@epa.gov)>; Long, Pam <[Long.Pam@epa.gov](mailto:Long.Pam@epa.gov)>; Kornylak, Vera S. <[Kornylak.Vera@epa.gov](mailto:Kornylak.Vera@epa.gov)>; Morales, Mariel <[Morales.Mariel@epa.gov](mailto:Morales.Mariel@epa.gov)>; Whitlow, Jeff <[Whitlow.Jeff@epa.gov](mailto:Whitlow.Jeff@epa.gov)>; Ashley, Jackie <[Ashley.Jackie@epa.gov](mailto:Ashley.Jackie@epa.gov)>; Terry, Sara <[Terry.Sara@epa.gov](mailto:Terry.Sara@epa.gov)>; Friedman, Kristina <[Friedman.Kristina@epa.gov](mailto:Friedman.Kristina@epa.gov)>

**Subject:** Due Wed: Questions for the Record

Yvonne, Martha, Amy and Marguerite –

Attached please find Questions for the Record from a recent House E&C committee budget hearing. Folks in DC have helped out a lot with the answers by filling in approved text from fact sheets, testimony and recent letters. Would you take a look and add/subtract from the answers? Would you be able to send me your answers by 4pm on Wed?

Thanks,

Jenny

Alison – Would you be able to pitch in on an ICR question on page 6?

WHI-017q Recently the White House released a Joint Statement between the United States and Canada which indicated EPA “will begin developing regulations for methane emissions from existing oil and gas sources immediately and will move as expeditiously as possible to complete

this process.”

A. Given EPA’s work on voluntary programs for existing oil and gas sector sources, when did the agency begin discussion of possible mandatory programs for these sources?

B. Please provide the timeline for development of these regulations, including any information collection requests.

C. Under what statutory authority does EPA plan to develop these regulations?

D. What is the status of development of these regulations?

E. Does EPA plan to propose or finalize regulations before the end of the Administration?

F. Is EPA considering establishing cap-and-trade standards for methane similar to what the agency has done in the Clean Power Plan for the power sector?

G. Is EPA considering setting individual state methane targets or budgets similar to what the agency has done in the Clean Power Plan for the power sector?

H. Does EPA envision that it will be imposing “federal plans” on state oil and gas sectors to impose methane or greenhouse gas emissions trading like the Clean Power Plan?

WHI-017a [QUOTE FROM ICR FACTSHEET]

**To:** Dunkins, Robin[Dunkins.Robin@epa.gov]; Schrock, Bill[Schrock.Bill@epa.gov]  
**From:** Eck, Janet  
**Sent:** Fri 5/20/2016 2:49:28 PM  
**Subject:** FW: REMINDER: GAO request for update RE: 2008 GAO audit, Concentrated Animal Feeding Operations: EPA Needs More Information and a Clearly Defined Strategy to Protect Air and Water Quality from Pollutants of Concern  
[6913AA9C.pdf](#)  
[GAO RECOMMENDATION FOLLOW UP OLD RECOMMENDATIONS OAR.XLSX](#)

Will you be able to respond today? Jo Lynn is calling for our answer. Thanks.

**From:** Collins, JoLynn  
**Sent:** Wednesday, May 18, 2016 4:45 PM  
**To:** Thompson, Fred <Thompson.Fred@epa.gov>; McLamb, Marguerite <McLamb.Marguerite@epa.gov>; Dunkins, Robin <Dunkins.Robin@epa.gov>  
**Cc:** Eck, Janet <Eck.Janet@epa.gov>  
**Subject:** REMINDER: GAO request for update RE: 2008 GAO audit, Concentrated Animal Feeding Operations: EPA Needs More Information and a Clearly Defined Strategy to Protect Air and Water Quality from Pollutants of Concern

Hi folks,

This a reminder that I need a response to this update request by COB tomorrow.

Let me know if you have any questions.

JoLynn

**From:** Collins, JoLynn  
**Sent:** Monday, April 25, 2016 8:34 AM  
**To:** Dunkins, Robin <Dunkins.Robin@epa.gov>  
**Subject:** FW: GAO request for update RE: 2008 GAO audit, Concentrated Animal Feeding

Operations: EPA Needs More Information and a Clearly Defined Strategy to Protect Air and Water Quality from Pollutants of Concern

Hi Robin,

Please see the update request below. This audit is pretty old, initiated before I was working on GAO audits, I'm not sure who is working on this project now, but the names I could find in the records are below. Please let me know by COB tomorrow, who will be the point of contact for this response. I need to get your group's response by **COB May 19**. Let me know if you have any questions.

Angela Hackel, Allison Mayer, Bill Schrock, Kevin McLaughlin, Larry Elmore, Amy Vasu

JoLynn Collins

Office of Air Quality Planning and Standards

Central Operations and Resources

Acquisition and Accountability Group

Room C461J; Mail Code C404-02

T.W. Alexander Drive

Research Triangle Park, NC 27711

(919) 541-5671

**From:** Hingeley, Maureen

**Sent:** Friday, April 22, 2016 4:07 PM

**To:** Collins, JoLynn <Collins.Jolynn@epa.gov>; Jones, Mike <Jones.Mike@epa.gov>; OAQPS CMT <OAQPS\_CMT@epa.gov>; Dunkins, Robin <Dunkins.Robin@epa.gov>; Schrock, Bill <Schrock.Bill@epa.gov>

**Subject:** GAO request for update RE: 2008 GAO audit, Concentrated Animal Feeding Operations: EPA Needs More Information and a Clearly Defined Strategy to Protect Air and Water Quality from Pollutants of Concern

Hi all,

GAO has requested an update on an older 2008 audit report GAO-08-944, *Concentrated Animal Feeding Operations: EPA Needs More Information and a Clearly Defined Strategy to Protect Air and Water Quality from Pollutants of Concern*. In appendix V of the attached report contains the agency's response to the report recommendations. For the 2 recommendations listed in the excel doc, please provide an update on the current status by May 20<sup>th</sup>. Please note this is a shared audit with OW. Please let me know if there are any questions or additional info is needed. Thanks.

Best,

Maureen

Maureen Hingeley

Office of Program Management Operations

Office of Air and Radiation

EPA

202-564-1306



**To:** Collins, JoLynn[Collins.Jolynn@epa.gov]  
**Cc:** Dunkins, Robin[Dunkins.Robin@epa.gov]; Schrock, Bill[Schrock.Bill@epa.gov]; Thompson, Fred[Thompson.Fred@epa.gov]; McLamb, Marguerite[McLamb.Marguerite@epa.gov]  
**From:** Eck, Janet  
**Sent:** Fri 5/20/2016 4:25:47 PM  
**Subject:** FW: GAO request for update RE: 2008 GAO audit, Concentrated Animal Feeding Operations: EPA Needs More Information and a Clearly Defined Strategy to Protect Air and Water Quality from Pollutants of Concern  
GAO RECOMMENDATION FOLLOW UP OLD RECOMMENDATIONS OAR 050216 wcsv2.xlsx

Hi JoLynn, Attached is the SPPD response to this GAO audit. POCs for this response are Bill Schrock and Robin Dunkins. Thanks.

**From:** Hingeley, Maureen  
**Sent:** Friday, April 22, 2016 4:07 PM  
**To:** Collins, JoLynn <Collins.Jolynn@epa.gov>; Jones, Mike <Jones.Mike@epa.gov>; OAQPS CMT <OAQPS\_CMT@epa.gov>; Dunkins, Robin <Dunkins.Robin@epa.gov>; Schrock, Bill <Schrock.Bill@epa.gov>  
**Subject:** GAO request for update RE: 2008 GAO audit, Concentrated Animal Feeding Operations: EPA Needs More Information and a Clearly Defined Strategy to Protect Air and Water Quality from Pollutants of Concern

Hi all,

GAO has requested an update on an older 2008 audit report GAO-08-944, *Concentrated Animal Feeding Operations: EPA Needs More Information and a Clearly Defined Strategy to Protect Air and Water Quality from Pollutants of Concern*. In appendix V of the attached report contains the agency's response to the report recommendations. For the 2 recommendations listed in the excel doc, please provide an update on the current status by May 20<sup>th</sup>. Please note this is a shared audit with OW. Please let me know if there are any questions or additional info is needed. Thanks.

Best,

Maureen

Maureen Hingeley

Office of Program Management Operations

Office of Air and Radiation

EPA

202-564-1306

**To:** Schrock, Bill[Schrock.Bill@epa.gov]  
**Cc:** Dunkins, Robin[Dunkins.Robin@epa.gov]; Mills, Kathy[Mills.Kathy@epa.gov]; Vasu, Amy[Vasu.Amy@epa.gov]  
**From:** Morales, Mariel  
**Sent:** Wed 5/25/2016 6:36:05 PM  
**Subject:** FW: ACTION: CQ Roll Call RE: livestock emissions

Hi Bill,

Per our conversation, here is the press inquiry from Kristen. Does the response she provided answer the reporter's question? Please revise as appropriate. We need to get this back to Kristen today.

~ Mariel M.

EPA plans to address the need for regulation following completion of the National Air Emissions Monitoring Study, a study that involves the collection and analysis of air emissions data from numerous animal feeding operations throughout the country. The agency is presently engaged with the EPA Science Advisory Board on our analysis of the data from broiler farms and open sources located at swine and dairy facilities.

**From:** Bremer, Kristen  
**Sent:** Wednesday, May 25, 2016 2:23 PM  
**To:** Morales, Mariel <Morales.Mariel@epa.gov>  
**Cc:** Dunkins, Robin <Dunkins.Robin@epa.gov>; Mills, Kathy <Mills.Kathy@epa.gov>  
**Subject:** FW: ACTION: CQ Roll Call RE: livestock emissions  
**Importance:** High

Hi Mariel,

We have an ag press question regarding regulation of livestock emissions. We've said the following in the past. Does this still apply, given the reporter's question? Deadline is COB today (but sooner is always better). Thanks!

EPA plans to address the need for regulation following completion of the National Air Emissions Monitoring Study, a study that involves the collection and analysis of air emissions data from numerous animal feeding operations throughout the country. The agency is presently engaged with the EPA Science Advisory Board on our analysis of the data from broiler farms and open sources located at swine and dairy facilities.

---

Kristen Bremer

Policy Analysis & Communications

U.S. EPA, Office of Air Quality Planning & Standards

Email: [bremer.kristen@epa.gov](mailto:bremer.kristen@epa.gov)

Phone: 919.541.9424

Cell: 919.321.7652

**From:** Jones, Enesta

**Sent:** Wednesday, May 25, 2016 1:55 PM

**To:** Davis, Alison <[Davis.Alison@epa.gov](mailto:Davis.Alison@epa.gov)>; Bremer, Kristen <[Bremer.Kristen@epa.gov](mailto:Bremer.Kristen@epa.gov)>;

Drinkard, Andrea <[Drinkard.Andrea@epa.gov](mailto:Drinkard.Andrea@epa.gov)>

**Cc:** Jones, Enesta <[Jones.Enesta@epa.gov](mailto:Jones.Enesta@epa.gov)>

**Subject:** ACTION: CQ Roll Call RE: livestock emissions

**Enesta Jones**

**U.S. EPA, Office of Media Relations**

**Desk: 202.564.7873**

**Cell: 202.236.2426**

Begin forwarded message:

**From:** Daniel Bloom <[DanielBloom@cqrollcall.com](mailto:DanielBloom@cqrollcall.com)>  
**Date:** May 25, 2016 at 1:53:31 PM EDT  
**To:** "Jones, Enesta" <[Jones.Enesta@epa.gov](mailto:Jones.Enesta@epa.gov)>  
**Subject: RE: livestock emissions**

Deadline, as always, is ASAP (☺). I am asking because the draft House Interior-Environment Appropriations bill for fiscal 2017 included a provision barring EPA from using federal funds to regulate livestock emissions under the Clean Air Act.

Dan

**From:** Jones, Enesta [<mailto:Jones.Enesta@epa.gov>]  
**Sent:** Wednesday, May 25, 2016 1:52 PM  
**To:** Daniel Bloom  
**Subject:** RE: livestock emissions

Deadline, Daniel? Any reason you are asking in particular?

**From:** Daniel Bloom [<mailto:DanielBloom@cqrollcall.com>]  
**Sent:** Wednesday, May 25, 2016 1:51 PM  
**To:** Jones, Enesta <[Jones.Enesta@epa.gov](mailto:Jones.Enesta@epa.gov)>  
**Subject:** livestock emissions

Enesta,

Does the EPA currently regulate livestock emissions under the Clean Air Act, or is it planning to do so in the near future? Thanks.

Sincerely,

Daniel Bloom

Energy Reporter

CQ Roll Call

Work #: (202) 650-6843

Mobile #: (847) 370-8776

[danielbloom@cqrollcall.com](mailto:danielbloom@cqrollcall.com)

-----  
This e-mail may contain confidential material. If you are not an intended recipient, please notify the sender and delete all copies. It may also contain personal views which are not the views of CQ Roll Call or its owner, The Economist Group. We may monitor e-mail to and from our network. For company information go to <http://legal.economistgroup.com>.

**To:** Schrock, Bill[Schrock.Bill@epa.gov]  
**Cc:** Dunkins, Robin[Dunkins.Robin@epa.gov]; Mills, Kathy[Mills.Kathy@epa.gov]; Vasu, Amy[Vasu.Amy@epa.gov]; Costa, Allison[Costa.Allison@epa.gov]  
**From:** Morales, Mariel  
**Sent:** Wed 5/25/2016 7:09:49 PM  
**Subject:** RE: ACTION: CQ Roll Call RE: livestock emissions

Hi Bill,

Thank you for the edits. I made a few tweaks to the response. Please see below in red. If you're okay with this I will send it along to Kristen.

EPA plans to address the need for regulation following completion of the National Air Emissions Monitoring Study (NAEMS), a study that involves the collection and analysis of air emissions data from numerous animal feeding operations throughout the country. The agency is presently engaged with the EPA Science Advisory Board (SAB) on our analysis of the data from broiler farms and open sources located at swine and dairy facilities. Specifically, we have been working over the past several years to address some of the SAB recommendations. For example, in accordance with those recommendations, we have acquired additional data sets, and reanalyzed the NAEMS data.

~ Mariel M.

**From:** Schrock, Bill  
**Sent:** Wednesday, May 25, 2016 2:55 PM  
**To:** Morales, Mariel <Morales.Mariel@epa.gov>  
**Cc:** Dunkins, Robin <Dunkins.Robin@epa.gov>; Mills, Kathy <Mills.Kathy@epa.gov>; Vasu, Amy <Vasu.Amy@epa.gov>; Costa, Allison <Costa.Allison@epa.gov>  
**Subject:** RE: ACTION: CQ Roll Call RE: livestock emissions

Mariel – Just added a bit of info to the end of the old response since I'm not sure I consider us real actively engaged with the SAB but we have been working to respond to their recommendations. I know it wasn't ask – but the language in the appropriations bill has been there for several years and it only relates

to regulations of GHGs from biological processes which we consider to be enteric fermentation emissions from the animal itself. I've attached an old 1-pager on the topic.

EPA plans to address the need for regulation following completion of the National Air Emissions Monitoring Study, a study that involves the collection and analysis of air emissions data from numerous animal feeding operations throughout the country. The agency is presently engaged with the EPA Science Advisory Board on our analysis of the data from broiler farms and open sources located at swine and dairy facilities. Specifically, we have been working over the past several years to address some of the SAB recommendations. For example, we have acquired additional data sets, and reanalyzed the NAEMS data in accordance with the recommendations.

Bill Schrock  
U.S. EPA  
RTP, NC 27709  
(919) 541-5032  
(919) 541-3470 (fax)

**From:** Morales, Mariel  
**Sent:** Wednesday, May 25, 2016 2:36 PM  
**To:** Schrock, Bill <[Schrock.Bill@epa.gov](mailto:Schrock.Bill@epa.gov)>  
**Cc:** Dunkins, Robin <[Dunkins.Robin@epa.gov](mailto:Dunkins.Robin@epa.gov)>; Mills, Kathy <[Mills.Kathy@epa.gov](mailto:Mills.Kathy@epa.gov)>; Vasu, Amy <[Vasu.Amy@epa.gov](mailto:Vasu.Amy@epa.gov)>  
**Subject:** FW: ACTION: CQ Roll Call RE: livestock emissions  
**Importance:** High

Hi Bill,

Per our conversation, here is the press inquiry from Kristen. Does the response she provided answer the reporter's question? Please revise as appropriate. We need to get this back to Kristen today.

~ Mariel M.

EPA plans to address the need for regulation following completion of the National Air Emissions



Monitoring Study, a study that involves the collection and analysis of air emissions data from numerous animal feeding operations throughout the country. The agency is presently engaged with the EPA Science Advisory Board on our analysis of the data from broiler farms and open sources located at swine and dairy facilities.

**From:** Bremer, Kristen  
**Sent:** Wednesday, May 25, 2016 2:23 PM  
**To:** Morales, Mariel <[Morales.Mariel@epa.gov](mailto:Morales.Mariel@epa.gov)>  
**Cc:** Dunkins, Robin <[Dunkins.Robin@epa.gov](mailto:Dunkins.Robin@epa.gov)>; Mills, Kathy <[Mills.Kathy@epa.gov](mailto:Mills.Kathy@epa.gov)>  
**Subject:** FW: ACTION: CQ Roll Call RE: livestock emissions  
**Importance:** High

Hi Mariel,

We have an ag press question regarding regulation of livestock emissions. We've said the following in the past. Does this still apply, given the reporter's question? Deadline is COB today (but sooner is always better). Thanks!

EPA plans to address the need for regulation following completion of the National Air Emissions Monitoring Study, a study that involves the collection and analysis of air emissions data from numerous animal feeding operations throughout the country. The agency is presently engaged with the EPA Science Advisory Board on our analysis of the data from broiler farms and open sources located at swine and dairy facilities.

---

Kristen Bremer

Policy Analysis & Communications

U.S. EPA, Office of Air Quality Planning & Standards

Email: [bremer.kristen@epa.gov](mailto:bremer.kristen@epa.gov)

Phone: 919.541.9424

Cell: 919.321.7652

**From:** Jones, Enesta

**Sent:** Wednesday, May 25, 2016 1:55 PM

**To:** Davis, Alison <[Davis.Alison@epa.gov](mailto:Davis.Alison@epa.gov)>; Bremer, Kristen <[Bremer.Kristen@epa.gov](mailto:Bremer.Kristen@epa.gov)>;  
Drinkard, Andrea <[Drinkard.Andrea@epa.gov](mailto:Drinkard.Andrea@epa.gov)>

**Cc:** Jones, Enesta <[Jones.Enesta@epa.gov](mailto:Jones.Enesta@epa.gov)>

**Subject:** ACTION: CQ Roll Call RE: livestock emissions

**Enesta Jones**

**U.S. EPA, Office of Media Relations**

**Desk: 202.564.7873**

**Cell: 202.236.2426**

Begin forwarded message:

**From:** Daniel Bloom <[DanielBloom@cqrollcall.com](mailto:DanielBloom@cqrollcall.com)>

**Date:** May 25, 2016 at 1:53:31 PM EDT

**To:** "Jones, Enesta" <[Jones.Enesta@epa.gov](mailto:Jones.Enesta@epa.gov)>

**Subject: RE: livestock emissions**

Deadline, as always, is ASAP (☺). I am asking because the draft House Interior-Environment Appropriations bill for fiscal 2017 included a provision barring EPA from using federal funds to regulate livestock emissions under the Clean Air Act.

Dan

**From:** Jones, Enesta [<mailto:Jones.Enesta@epa.gov>]

**Sent:** Wednesday, May 25, 2016 1:52 PM  
**To:** Daniel Bloom  
**Subject:** RE: livestock emissions

Deadline, Daniel? Any reason you are asking in particular?

**From:** Daniel Bloom [<mailto:DanielBloom@cqrollcall.com>]  
**Sent:** Wednesday, May 25, 2016 1:51 PM  
**To:** Jones, Enesta <[Jones.Enesta@epa.gov](mailto:Jones.Enesta@epa.gov)>  
**Subject:** livestock emissions

Enesta,

Does the EPA currently regulate livestock emissions under the Clean Air Act, or is it planning to do so in the near future? Thanks.

Sincerely,

Daniel Bloom

Energy Reporter

CQ Roll Call

Work #: (202) 650-6843

Mobile #: (847) 370-8776

[danielbloom@cqrollcall.com](mailto:danielbloom@cqrollcall.com)

---

This e-mail may contain confidential material. If you are not an intended recipient, please notify the sender and delete all copies. It may also

ED\_000919\_00000906

contain personal views which are not the views of CQ Roll Call or its owner, The Economist Group. We may monitor e-mail to and from our network. For company information go to <http://legal.economistgroup.com>.

**To:** Bremer, Kristen[Bremer.Kristen@epa.gov]  
**Cc:** Dunkins, Robin[Dunkins.Robin@epa.gov]; Mills, Kathy[Mills.Kathy@epa.gov]; Vasu, Amy[Vasu.Amy@epa.gov]; Schrock, Bill[Schrock.Bill@epa.gov]  
**From:** Morales, Mariel  
**Sent:** Wed 5/25/2016 7:43:12 PM  
**Subject:** RE: ACTION: CQ Roll Call RE: livestock emissions

Hi Kristen,

I ran this by Bill Schrock. We made a few edits to the response. Please see below.

~ Mariel M.

EPA plans to address the need for regulation following completion of the National Air Emissions Monitoring Study (NAEMS), a study that involves the collection and analysis of air emissions data from numerous animal feeding operations throughout the country. The agency is presently engaged with the EPA Science Advisory Board (SAB) on our analysis of the data from broiler farms and open sources located at swine and dairy facilities. Specifically, we have been working over the past several years to address some of the SAB recommendations. For example, in accordance with those recommendations, we have acquired additional data sets, and reanalyzed the NAEMS data.

**From:** Bremer, Kristen  
**Sent:** Wednesday, May 25, 2016 2:23 PM  
**To:** Morales, Mariel <Morales.Mariel@epa.gov>  
**Cc:** Dunkins, Robin <Dunkins.Robin@epa.gov>; Mills, Kathy <Mills.Kathy@epa.gov>  
**Subject:** FW: ACTION: CQ Roll Call RE: livestock emissions  
**Importance:** High

Hi Mariel,

We have an ag press question regarding regulation of livestock emissions. We've said the

following in the past. Does this still apply, given the reporter's question? Deadline is COB today (but sooner is always better). Thanks!

EPA plans to address the need for regulation following completion of the National Air Emissions Monitoring Study, a study that involves the collection and analysis of air emissions data from numerous animal feeding operations throughout the country. The agency is presently engaged with the EPA Science Advisory Board on our analysis of the data from broiler farms and open sources located at swine and dairy facilities.

---

Kristen Bremer

Policy Analysis & Communications

U.S. EPA, Office of Air Quality Planning & Standards

Email: [bremer.kristen@epa.gov](mailto:bremer.kristen@epa.gov)

Phone: 919.541.9424

Cell: 919.321.7652

**From:** Jones, Enesta

**Sent:** Wednesday, May 25, 2016 1:55 PM

**To:** Davis, Alison <[Davis.Alison@epa.gov](mailto:Davis.Alison@epa.gov)>; Bremer, Kristen <[Bremer.Kristen@epa.gov](mailto:Bremer.Kristen@epa.gov)>;  
Drinkard, Andrea <[Drinkard.Andrea@epa.gov](mailto:Drinkard.Andrea@epa.gov)>

**Cc:** Jones, Enesta <[Jones.Enesta@epa.gov](mailto:Jones.Enesta@epa.gov)>

**Subject:** ACTION: CQ Roll Call RE: livestock emissions

**Enesta Jones**

**U.S. EPA, Office of Media Relations**

**Desk: 202.564.7873**

**Cell: 202.236.2426**

Begin forwarded message:

**From:** Daniel Bloom <[DanielBloom@cqrollcall.com](mailto:DanielBloom@cqrollcall.com)>  
**Date:** May 25, 2016 at 1:53:31 PM EDT  
**To:** "Jones, Enesta" <[Jones.Enesta@epa.gov](mailto:Jones.Enesta@epa.gov)>  
**Subject:** RE: livestock emissions

Deadline, as always, is ASAP (☺). I am asking because the draft House Interior-Environment Appropriations bill for fiscal 2017 included a provision barring EPA from using federal funds to regulate livestock emissions under the Clean Air Act.

Dan

**From:** Jones, Enesta [<mailto:Jones.Enesta@epa.gov>]  
**Sent:** Wednesday, May 25, 2016 1:52 PM  
**To:** Daniel Bloom  
**Subject:** RE: livestock emissions

Deadline, Daniel? Any reason you are asking in particular?

**From:** Daniel Bloom [<mailto:DanielBloom@cqrollcall.com>]  
**Sent:** Wednesday, May 25, 2016 1:51 PM  
**To:** Jones, Enesta <[Jones.Enesta@epa.gov](mailto:Jones.Enesta@epa.gov)>  
**Subject:** livestock emissions

Enesta,

Does the EPA currently regulate livestock emissions under the Clean Air Act, or is it planning to do so in the near future? Thanks.

Sincerely,

Daniel Bloom

Energy Reporter

CQ Roll Call

Work #: (202) 650-6843

Mobile #: (847) 370-8776

[danielbloom@cqrollcall.com](mailto:danielbloom@cqrollcall.com)

-----  
This e-mail may contain confidential material. If you are not an intended recipient, please notify the sender and delete all copies. It may also contain personal views which are not the views of CQ Roll Call or its owner, The Economist Group. We may monitor e-mail to and from our network. For company information go to <http://legal.economistgroup.com>.



**To:** Morales, Mariel[Morales.Mariel@epa.gov]  
**Cc:** Dunkins, Robin[Dunkins.Robin@epa.gov]; Mills, Kathy[Mills.Kathy@epa.gov]; Vasu, Amy[Vasu.Amy@epa.gov]; Schrock, Bill[Schrock.Bill@epa.gov]  
**From:** Bremer, Kristen  
**Sent:** Wed 5/25/2016 7:46:23 PM  
**Subject:** RE: ACTION: CQ Roll Call RE: livestock emissions

Would we want to add this in?

EPA does not currently have federal regulations in place that directly regulate air emissions from livestock.

However, under the Clean Air Act, a farm would be required to obtain a construction permit for construction or modification of a stationary source of air pollution at the farm (such as a stationary engine) and depending on the air emissions from that source. (Construction permitting rules include emission thresholds for certain air pollutants that determine whether a source needs a permit and the type of permit that is required.)

**Background: here is some other information that may be helpful for you:**

In areas that are designated as “nonattainment” for a national ambient air quality standard (NAAQS), a state may regulate livestock farms if it determines they are contributing to the area’s nonattainment status. In this type of situation, a state may choose to regulate livestock farms as part of a state implementation plan (SIP) that outlines how the state will meet the standard.

States, EPA and USDA may work together to determine the appropriate control technology and/or work practice to comply with applicable requirements.

In addition, in some states, livestock farms may be subject to state regulations and permits that a state has developed independent of the SIP.

---

Kristen Bremer

Policy Analysis & Communications

U.S. EPA, Office of Air Quality Planning & Standards

Email: [bremer.kristen@epa.gov](mailto:bremer.kristen@epa.gov)

Phone: 919.541.9424

Cell: 919.321.7652

**From:** Morales, Mariel

**Sent:** Wednesday, May 25, 2016 3:43 PM

**To:** Bremer, Kristen <Bremer.Kristen@epa.gov>

**Cc:** Dunkins, Robin <Dunkins.Robin@epa.gov>; Mills, Kathy <Mills.Kathy@epa.gov>; Vasu, Amy <Vasu.Amy@epa.gov>; Schrock, Bill <Schrock.Bill@epa.gov>

**Subject:** RE: ACTION: CQ Roll Call RE: livestock emissions

Hi Kristen,

I ran this by Bill Schrock. We made a few edits to the response. Please see below.

~ Mariel M.

EPA plans to address the need for regulation following completion of the National Air Emissions Monitoring Study (NAEMS), a study that involves the collection and analysis of air emissions data from numerous animal feeding operations throughout the country. The agency is presently engaged with the EPA Science Advisory Board (SAB) on our analysis of the data from broiler farms and open sources located at swine and dairy facilities. Specifically, we have been working over the past several years to address some of the SAB recommendations. For example, in accordance with those recommendations, we have acquired additional data sets, and reanalyzed the NAEMS data.

**From:** Bremer, Kristen  
**Sent:** Wednesday, May 25, 2016 2:23 PM  
**To:** Morales, Mariel <[Morales.Mariel@epa.gov](mailto:Morales.Mariel@epa.gov)>  
**Cc:** Dunkins, Robin <[Dunkins.Robin@epa.gov](mailto:Dunkins.Robin@epa.gov)>; Mills, Kathy <[Mills.Kathy@epa.gov](mailto:Mills.Kathy@epa.gov)>  
**Subject:** FW: ACTION: CQ Roll Call RE: livestock emissions  
**Importance:** High

Hi Mariel,

We have an ag press question regarding regulation of livestock emissions. We've said the following in the past. Does this still apply, given the reporter's question? Deadline is COB today (but sooner is always better). Thanks!

EPA plans to address the need for regulation following completion of the National Air Emissions Monitoring Study, a study that involves the collection and analysis of air emissions data from numerous animal feeding operations throughout the country. The agency is presently engaged with the EPA Science Advisory Board on our analysis of the data from broiler farms and open sources located at swine and dairy facilities.

---

Kristen Bremer

Policy Analysis & Communications

U.S. EPA, Office of Air Quality Planning & Standards

Email: [bremer.kristen@epa.gov](mailto:bremer.kristen@epa.gov)

Phone: 919.541.9424

Cell: 919.321.7652

**From:** Jones, Enesta  
**Sent:** Wednesday, May 25, 2016 1:55 PM

**To:** Davis, Alison <[Davis.Alison@epa.gov](mailto:Davis.Alison@epa.gov)>; Bremer, Kristen <[Bremer.Kristen@epa.gov](mailto:Bremer.Kristen@epa.gov)>;  
Drinkard, Andrea <[Drinkard.Andrea@epa.gov](mailto:Drinkard.Andrea@epa.gov)>  
**Cc:** Jones, Enesta <[Jones.Enesta@epa.gov](mailto:Jones.Enesta@epa.gov)>  
**Subject:** ACTION: CQ Roll Call RE: livestock emissions

**Enesta Jones**

**U.S. EPA, Office of Media Relations**

**Desk: 202.564.7873**

**Cell: 202.236.2426**

Begin forwarded message:

**From:** Daniel Bloom <[DanielBloom@cqrollcall.com](mailto:DanielBloom@cqrollcall.com)>  
**Date:** May 25, 2016 at 1:53:31 PM EDT  
**To:** "Jones, Enesta" <[Jones.Enesta@epa.gov](mailto:Jones.Enesta@epa.gov)>  
**Subject:** RE: livestock emissions

Deadline, as always, is ASAP (☺). I am asking because the draft House Interior-Environment Appropriations bill for fiscal 2017 included a provision barring EPA from using federal funds to regulate livestock emissions under the Clean Air Act.

Dan

**From:** Jones, Enesta [<mailto:Jones.Enesta@epa.gov>]  
**Sent:** Wednesday, May 25, 2016 1:52 PM  
**To:** Daniel Bloom  
**Subject:** RE: livestock emissions

Deadline, Daniel? Any reason you are asking in particular?

**From:** Daniel Bloom [<mailto:DanielBloom@cqrollcall.com>]

**Sent:** Wednesday, May 25, 2016 1:51 PM  
**To:** Jones, Enesta <[Jones.Enesta@epa.gov](mailto:Jones.Enesta@epa.gov)>  
**Subject:** livestock emissions

Enesta,

Does the EPA currently regulate livestock emissions under the Clean Air Act, or is it planning to do so in the near future? Thanks.

Sincerely,

Daniel Bloom

Energy Reporter

CQ Roll Call

Work #: (202) 650-6843

Mobile #: (847) 370-8776

[danielbloom@cqrollcall.com](mailto:danielbloom@cqrollcall.com)

-----  
This e-mail may contain confidential material. If you are not an intended recipient, please notify the sender and delete all copies. It may also contain personal views which are not the views of CQ Roll Call or its owner, The Economist Group. We may monitor e-mail to and from our network. For company information go to <http://legal.economistgroup.com>.

**From:** Dunkins, Robin  
**Location:** RTP-OAQPS-E141B/RTP-OAQPS-BLDG-E  
**Importance:** Normal  
**Subject:** The "Reference guide" project update  
**Start Date/Time:** Thur 9/10/2015 5:00:00 PM  
**End Date/Time:** Thur 9/10/2015 5:45:00 PM  
AFOs Air Emisissions BMPs Work Plan update 9.9.2015.docx

Attached is the write up of talking points that I wish we may discuss at tomorrow's meeting. I hope this will not only keep you informed of the progress, but also keep the communication open so that I may get inputs and advice from you all before I start drafting the document.

**To:** Fritz, Matthew[Fritz.Matthew@epa.gov]  
**From:** Ingram, Amir  
**Sent:** Thur 9/10/2015 4:34:42 PM  
**Subject:** Administrator's Weekly Report- September 11, 2015  
EPA FINAL Weekly Administrator's Report 09 11 15.docx

Good afternoon,

Attached, you'll find the Administrator's Weekly Report covering the period of September 11 thru September 20.

Please let us know if you have any questions or comments.

**To:** McCabe, Janet[McCabe.Janet@epa.gov]; Goffman, Joseph[Goffman.Joseph@epa.gov]; Jordan, Deborah[Jordan.Deborah@epa.gov]; Niebling, William[Niebling.William@epa.gov]  
**Cc:** Page, Steve[Page.Steve@epa.gov]; Koerber, Mike[Koerber.Mike@epa.gov]; Noonan, Jenny[Noonan.Jenny@epa.gov]; South, Peter[South.Peter@epa.gov]; Iglesias, Amber[Iglesias.Amber@epa.gov]; Rush, Alan[Rush.Alan@epa.gov]  
**From:** Henigin, Mary  
**Sent:** Fri 9/18/2015 11:17:58 AM  
**Subject:** OAQPS Petitions Inventory  
[OAQPS Petition Inventory 9\\_17\\_15.docx](#)  
[ATT00001.txt](#)

Good morning, attached is our current OAQPS petitions inventory.  
Please let us know if you have any questions or concerns.

Thank you  
Mary



**From:** Plotkin, Viktoriya

**Location:** VTC: RRB 41213 / R3 DRA Meeting Room / RTP D349 / R8 RA  
Conference Room / Call in: 1.866.299.3188 code: 202.564.7356

**Importance:** Normal

**Subject:** ORD Research Delivery and Future Directions - OAR

**Start Date/Time:** Thur 10/22/2015 8:00:00 PM

**End Date/Time:** Thur 10/22/2015 9:00:00 PM

[OAR RO3 RO8 annual AA mtg 10 19 15.pptx](#)

[Agenda OAR-RO ORD 10-22-15 Annual Mtg.docx](#)

**To:** McCabe, Janet[McCabe.Janet@epa.gov]  
**Cc:** Page, Steve[Page.Steve@epa.gov]; Koerber, Mike[Koerber.Mike@epa.gov]; Stewart, Lori[Stewart.Lori@epa.gov]; Cyran, Carissa[Cyran.Carissa@epa.gov]; Iglesias, Amber[Iglesias.Amber@epa.gov]; Rush, Alan[Rush.Alan@epa.gov]  
**From:** Henigin, Mary  
**Sent:** Mon 2/8/2016 4:02:34 PM  
**Subject:** OAQPS Petition inventory  
OAQPS Petition Inventory 2 4 15.docx

Good morning Janet, please find attached the current OAQPS petition inventory.

Thank you

Mary

**To:** Dunham, Sarah[Dunham.Sarah@epa.gov]; Krieger, Jackie[Krieger.Jackie@epa.gov]; Flynn, Mike[Flynn.Mike@epa.gov]; Cherepy, Andrea[Cherepy.Andrea@epa.gov]; Grundler, Christopher[grundler.christopher@epa.gov]; Hengst, Benjamin[Hengst.Benjamin@epa.gov]; Page, Steve[Page.Steve@epa.gov]; Koerber, Mike[Koerber.Mike@epa.gov]  
**Cc:** DeMocker, Jim[DeMocker.Jim@epa.gov]; Saltman, Tamara[Saltman.Tamara@epa.gov]; Kurlansky, Ellen[Kurlansky.Ellen@epa.gov]; Cyran, Carissa[Cyran.Carissa@epa.gov]; Goffman, Joseph[Goffman.Joseph@epa.gov]; Jordan, Deborah[Jordan.Deborah@epa.gov]  
**From:** Stewart, Lori  
**Sent:** Tue 2/16/2016 10:18:22 PM  
**Subject:** Draft USDA material  
[USDA Meeting Agenda Feb18.docx](#)  
[USDA Meeting Agenda Feb18 annotated.docx](#)

Thank you for the input on the USDA agenda. I am attaching a first draft of the agenda, along with an annotated version that includes the descriptions you sent in on each topic (for EPA only, I believe). The topics may be culled down between now and Thursday. We'll share this with Janet tonight. I included RFS under climate, but will see what Janet's preference is on that. Thanks.

**From:** Stewart, Lori  
**Sent:** Wednesday, February 10, 2016 1:04 PM  
**To:** Dunham, Sarah <Dunham.Sarah@epa.gov>; Krieger, Jackie <Krieger.Jackie@epa.gov>; Flynn, Mike <Flynn.Mike@epa.gov>; Cherepy, Andrea <Cherepy.Andrea@epa.gov>; Grundler, Christopher <grundler.christopher@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Page, Steve <Page.Steve@epa.gov>; Koerber, Mike <Koerber.Mike@epa.gov>  
**Cc:** DeMocker, Jim <DeMocker.Jim@epa.gov>; Saltman, Tamara <Saltman.Tamara@epa.gov>; Kurlansky, Ellen <Kurlansky.Ellen@epa.gov>; Cyran, Carissa <Cyran.Carissa@epa.gov>  
**Subject:** USDA Agenda Topics - Friday, COB please

As follow-up to our senior staff meeting discussion, please send me a list of both climate and non-climate topics for the coordination meeting with USDA (scheduled on 2/18). Would appreciate getting this by **COB Friday, 2/12** so I can run them by Janet and see if any additional background information is needed. Thanks everyone.

**To:** Dunham, Sarah[Dunham.Sarah@epa.gov]; Krieger, Jackie[Krieger.Jackie@epa.gov]; Flynn, Mike[Flynn.Mike@epa.gov]; Cherepy, Andrea[Cherepy.Andrea@epa.gov]; Grundler, Christopher[grundler.christopher@epa.gov]; Hengst, Benjamin[Hengst.Benjamin@epa.gov]; Page, Steve[Page.Steve@epa.gov]; Koerber, Mike[Koerber.Mike@epa.gov]  
**Cc:** DeMocker, Jim[DeMocker.Jim@epa.gov]; Saltman, Tamara[Saltman.Tamara@epa.gov]; Kurlansky, Ellen[Kurlansky.Ellen@epa.gov]; Cyran, Carissa[Cyran.Carissa@epa.gov]  
**From:** Stewart, Lori  
**Sent:** Mon 3/7/2016 10:23:28 PM  
**Subject:** Draft USDA material  
[USDA Meeting Agenda March11 annotated.docx](#)

You may have noticed the USDA coordination meeting is back on the calendar this Friday, March 11. I am attaching the latest agenda (removed offsets due to other meetings that have since occurred on that) which we have shared (only page 1) with Robert and Patrick for their input. The annotated version is included in this file as well. Please let me know if you have any updates by COB Wednesday and we can get this back around on Thursday. Thanks everyone.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF  
INSPECTOR GENERAL

March 08, 2016

**MEMORANDUM**

**SUBJECT:** Project Notification:  
EPA's Efforts to Evaluate Air Emissions from Animal Feeding Operations  
Project No. OPE-FY16-0018

**FROM:** James L. Hatfield, Director, Air Evaluations  
Office of Program Evaluation

**TO:** Janet McCabe, Acting Assistant Administrator  
Office of Air and Radiation

The purpose of this memorandum is to notify you that the Office of Inspector General (OIG) for the U.S. Environmental Protection Agency (EPA) plans to begin an evaluation of the EPA's efforts to evaluate air emissions from animal feeding operations. This project is included in the OIG's Fiscal Year 2016 Annual Plan.

The OIG's objective is to determine what actions the EPA has taken to evaluate air emissions from animal feeding operations, including the status of EPA's National Air Emissions Monitoring Study.

During the preliminary research phase of our evaluation, we plan to review applicable laws, regulations, policies, procedures and guidance related to animal feeding operations' air emissions. We also plan to review any EPA animal feeding operations' air emissions modeling or measurement studies as well as any animal feeding operations' air emissions studies conducted by entities outside of the agency.

We plan to begin our work within Office of Air and Radiation's Office of Air Quality Planning and Standards. We may also meet with selected state agencies that regulate animal feeding operations' air emissions, and with industry groups, environmental groups, and other stakeholders concerned with animal feeding operations' air emissions and how they are evaluated and addressed by the EPA.

We will contact your audit liaison to arrange a mutually agreeable time for a kickoff meeting to discuss the project's objective and our planned work. We will also answer any questions about the evaluation process and reporting procedures. Prior to or during our kickoff meeting, we request that you provide us with copies of (or links to) the following materials:

- A comprehensive list of all operating animal feeding operations in the United States that meet the definition of concentrated animal feeding operations, including the type, size, and geographic location of each facility.

- The EPA's response to the Science Advisory Board's 2013 review of the National Air Emissions Monitoring Study reports.
- The EPA's responses to all citizen petitions regarding potential regulation of animal feeding operations' air emissions.

To ensure the success and timely completion of this project, we respectfully note that the OIG is authorized by the Inspector General Act of 1978 to have timely access to personnel and all material necessary to complete its objectives. For this evaluation, we may request access to EPA databases, meetings and interviews with EPA personnel and contractors, and documentation related to animal feeding operations in the United States. We will request your resolution if an agency employee or contractor refuses to provide requested records to the OIG, or otherwise fails to cooperate with the OIG. We may report unresolved access matters to the Administrator and include the incident in the Semiannual Report to Congress.

If you or your staff have any questions, please do not hesitate to contact me at (919) 541-1030 or [hatfield.jim@epa.gov](mailto:hatfield.jim@epa.gov); or Erica Hauck, Project Manager, at (303) 312-6629 or [hauck.eric@epa.gov](mailto:hauck.eric@epa.gov).

cc: Elizabeth Shaw, Deputy Assistant Administrator, Office of Air and Radiation  
 Steve Page, Director, Office of Air Quality Planning and Standards, Office of Air and Radiation  
 Maureen Hingeley, Audit Follow-Up Coordinator, Office of Air and Radiation  
 Nic Grzegozewski, Agency Follow-Up Coordinator  
 Melissa Harrison, Press Secretary, Office of Public Affairs  
 Arthur A. Elkins Jr., Inspector General  
 Charles Sheehan, Deputy Inspector General  
 Aracely Nunez-Mattocks, Chief of Staff, OIG  
 Alan Larsen, Counsel to the Inspector General  
 Carolyn Copper, Assistant Inspector General for Program Evaluation  
 Kevin Christensen, Assistant Inspector General for Audit  
 Patrick Sullivan, Assistant Inspector General for Investigations  
 Christine El-Zoghbi, Deputy Assistant Inspector General for Program Evaluation  
 Jennifer Kaplan, Deputy Assistant Inspector General for Congressional and Public Affairs  
 Jeffrey Lagda, Congressional and Media Liaison, OIG  
 Erica Hauck, Project Manager, Air Evaluations, OIG  
 Richard Jones, Air Evaluations, OIG  
 Kevin Good, Air Evaluations, OIG  
 Tempestt Woodard, Air Evaluations, OIG  
 Julie Narimatsu, Air Evaluations, OIG

**To:** Page, Steve[Page.Steve@epa.gov]; Koerber, Mike[Koerber.Mike@epa.gov]; Dunham, Sarah[Dunham.Sarah@epa.gov]; Krieger, Jackie[Krieger.Jackie@epa.gov]; Grundler, Christopher[grundler.christopher@epa.gov]; Hengst, Benjamin[Hengst.Benjamin@epa.gov]; Flynn, Mike[Flynn.Mike@epa.gov]; Cherepy, Andrea[Cherepy.Andrea@epa.gov]  
**From:** Stewart, Lori  
**Sent:** Fri 3/11/2016 2:39:39 PM  
**Subject:** Final Annotated USDA agenda  
[USDA Meeting Agenda March11 annotated as of March9.docx](#)

All, I meant to send this back around last night. Here is an updated paper for the 1:00 USDA coordination meeting. The offset discussion was removed from the agenda, and it includes some updates from OAQPS and ORIA. Only the first page will be shared at the meeting. Thanks.

**To:** McCabe, Janet[McCabe.Janet@epa.gov]; Shaw, Betsy[Shaw.Betsy@epa.gov]; Stewart, Lori[Stewart.Lori@epa.gov]; Niebling, William[Niebling.William@epa.gov]; Goffman, Joseph[Goffman.Joseph@epa.gov]; DeMocker, Jim[DeMocker.Jim@epa.gov]; Salgado, Omayra[Salgado.Omayra@epa.gov]; Flynn, Mike[Flynn.Mike@epa.gov]; Grundler, Christopher[grundler.christopher@epa.gov]; Page, Steve[Page.Steve@epa.gov]; Dunham, Sarah[Dunham.Sarah@epa.gov]; Cherepy, Andrea[Cherepy.Andrea@epa.gov]; OAQPS CMT[OAQPS\_CMT@epa.gov]; Koerber, Mike[Koerber.Mike@epa.gov]; Hyde, Courtney[Hyde.Courtney@epa.gov]; Krieger, Jackie[Krieger.Jackie@epa.gov]; Logan, Kia[Logan.Kia@epa.gov]; Bullard, Pamela[Bullard.Pamela@epa.gov]; Hengst, Benjamin[Hengst.Benjamin@epa.gov]; Shoaff, John[Shoaff.John@epa.gov]; Jones, Mike[Jones.Mike@epa.gov]; Collins, JoLynn[Collins.Jolynn@epa.gov]; Price, Doris[Price.Doris@epa.gov]; Edwards, Jonathan[Edwards.Jonathan@epa.gov]; Banister, Beverly[Banister.Beverly@epa.gov]  
**Cc:** Wortman, Eric[Wortman.Eric@epa.gov]  
**From:** Hingeley, Maureen  
**Sent:** Tue 4/12/2016 4:23:13 PM  
**Subject:** RE: OAR monthly audit tracking charts (OIG and GAO) \_ April 2016  
OAR's IG GAO audits April 2016.xlsx

All,

Attached are the monthly audit tracking charts for OAR's active OIG and GAO audits. Thankfully, we have not received a new audit since last month's update. Audit status updates are noted in red text.

Please let me know if there are any questions or additional information is needed.  
Thanks.

Best,

Maureen

Maureen Hingeley

Office of Program Management Operations

Office of Air and Radiation

US EPA



202-564-1306

**To:** McCabe, Janet[McCabe.Janet@epa.gov]  
**Cc:** Page, Steve[Page.Steve@epa.gov]; Koerber, Mike[Koerber.Mike@epa.gov]; Noonan, Jenny[Noonan.Jenny@epa.gov]; South, Peter[South.Peter@epa.gov]; Iglesias, Amber[Iglesias.Amber@epa.gov]; Goffman, Joseph[Goffman.Joseph@epa.gov]; Banister, Beverly[Banister.Beverly@epa.gov]; Cyran, Carissa[Cyran.Carissa@epa.gov]; Iglesias, Amber[Iglesias.Amber@epa.gov]; Rush, Alan[Rush.Alan@epa.gov]; Stewart, Lori[Stewart.Lori@epa.gov]  
**From:** Henigin, Mary  
**Sent:** Tue 7/12/2016 6:28:12 PM  
**Subject:** OAQPS Petition Inventory  
[OAQPS Petition Inventory 7 12 16.docx](#)

Good afternoon Janet, attached is our current OAQPS petitions inventory. Please let us know if you have any questions.

Thank you

Mary

**To:** Koerber, Mike[Koerber.Mike@epa.gov]; Page, Steve[Page.Steve@epa.gov]  
**From:** Cortelyou-Lee, Jan  
**Sent:** Mon 7/18/2016 7:22:26 PM  
**Subject:** 2-weeker for tomorrow's Sr. staff meeting.  
QAQPS+Priorities July 18 - 29 2016 .docx

**To:** Atkinson, Emily[Atkinson.Emily@epa.gov]  
**From:** McCabe, Janet  
**Sent:** Wed 2/10/2016 1:29:28 PM  
**Subject:** FW: OAQPS Petition inventory  
OAQPS Petition Inventory 2\_4\_15.docx

Could you please print this for me? thanks.

**From:** Henigin, Mary  
**Sent:** Monday, February 08, 2016 11:03 AM  
**To:** McCabe, Janet <McCabe.Janet@epa.gov>  
**Cc:** Page, Steve <Page.Steve@epa.gov>; Koerber, Mike <Koerber.Mike@epa.gov>; Stewart, Lori <Stewart.Lori@epa.gov>; Cyran, Carissa <Cyran.Carissa@epa.gov>; Iglesias, Amber <Iglesias.Amber@epa.gov>; Rush, Alan <Rush.Alan@epa.gov>  
**Subject:** OAQPS Petition inventory

Good morning Janet, please find attached the current OAQPS petition inventory.

Thank you

Mary

## **National Air Emissions Monitoring Study (NAEMS) Workplan**

### **Overview**

Two primary actions are recommended to complete the Environmental Protection Agency's (EPA) obligations pursuant to the Air Compliance Agreement:

1. Develop and implement approaches that can be used to quantify farm-by-farm emission estimates, and
2. Develop and promote the use of best management practices (BMPs).

OAR and ORD will work together and both organizations will engage the United States Department of Agriculture (USDA) to bring them in as an active participant in the two primary actions identified above.

### **Background**

The National Academy of Science (NAS) made several recommendations in their 2003 report, "Air Emissions from Animal Feeding Operations," on how to improve estimating animal feeding operation (AFO) emissions. One short-term recommendation was for EPA and USDA to initiate and conduct a coordinated research program designed to produce a scientifically sound basis for measuring and estimating AFO air emissions. Another recommendation was that EPA and USDA ultimately use process-based modelling to estimate air emissions from AFOs.

In 2005, EPA entered into a voluntary administrative consent agreement (Air Compliance Agreement) with a large number of AFO owners and operators to address AFO air emissions. This Agreement and the associated National Air Emissions Monitoring Study (NAEMS) addressed some of NAS's short-term research recommendations. However, it did not address the recommendation to develop a process-based model. The Agreement stated "EPA's long-term strategy involves additional recommendations from the NAS which entail developing a process-based model that considers the entire animal production process. The data collected in the NAEMS will lay the groundwork for developing these more process related emission estimates. However, as with any large and complex effort, this work must be conducted over a period of years."

Agreement participants funded the NAEMS and an independent third-party Science Advisor to conduct the field work with EPA oversight. The study measured emissions from representative broiler, egg-layer, swine and dairy AFOs located across the United States. In the Agreement, EPA committed to develop emission estimating methodologies (EEMs) using NAEMS and other relevant data, and the participants agreed to use these methodologies to estimate emissions for purposes of complying with applicable Clean Air Act permitting and Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and Emergency Planning and Community Right-to-Know Act (EPCRA) reporting requirements.

The NAEMS began in June 2007, concluded in early 2010, and all of the NAEMS data

were submitted to EPA by August 2010. After the data were organized and analyzed, efforts were initiated to document the findings in a series of reports. In early 2012, the Agency submitted documents containing the draft EEMs for broiler confinement houses and swine and dairy open sources (lagoons and basins) to the Science Advisory Board (SAB) for review. The SAB submitted its final report and recommendations to the Agency in April 2013. EPA reviewed the SAB's report and believes that the majority of the recommendations can be incorporated into the current statistical approach that was used to develop the first set of draft EEMs. Two of the recommendations potentially impact the future direction and approach of the project: (1) a "strong" recommendation that EPA develop a process-based modeling approach, and (2) a recommendation that EPA not apply the current versions of the statistical and modeling tools for estimating emissions beyond the farms in EPA's dataset.

OAR, ORD and OECA senior management recently met to discuss the agency's commitment to develop EEMs consistent with the Air Compliance Agreement. As a result of this meeting, OAR, ORD and OECA staff were tasked with developing an Action Plan<sup>1</sup> outlining an approach for moving forward. The remainder of this document describes a plan to move the EEM development process forward in both the short- and long-term.

### **Approach**

In response to the assigned task, OAR, ORD and OECA staff met several times to discuss how best to address the identified needs. Staff identified the following approach:

1. Develop and promote the use of BMPs.
  - OAR will work with ORD (and USDA) colleagues to investigate and develop BMPs (and control techniques) to reduce AFO emissions. This research will be used to address air resource concerns in areas where AFO emissions are determined to significantly contribute to air quality impairment, and potentially to satisfy state implementation plan requirements. EPA will also use the results to respond to current AFO-related petitions filed under Clean Air Act sections 111 and 108/109.
2. Develop and implement a plan for quantifying farm-by-farm emission estimates.
  - ORD will work with OAR colleagues to scope an appropriate plan for estimating AFO emissions, which accounts for the current data set (supplemented, as necessary, by additional existing data), OAR's initial work to develop draft EEMs, comments from the SAB and on-going ORD research activities. As part of this scoping study, possible information and actions could include:
    - Reach out to the AFO industry to determine whether it has any additional data

---

<sup>1</sup> When discussing air emissions from AFOs, the agency has not established an applicability size cutoff. Thus, the AFO/concentrated animal feeding operation (CAFO) size limits defined by OW in its CAFO rule are not applicable to this plan.

beyond the NAEMS data and whether it has any existing methodologies that would be relevant to the EEM development effort.

- Further analyze the NAEMS data and other relevant available data to strengthen the statistical based EEMs already produced to address SAB comments and to generate new EEMs for the remaining AFO sectors. The goal will be to respond to the SAB comments and develop the reports concurrently because the expectation is many of the issues will likely be similar (e.g., geographic representation). Additional analyses will be necessary to demonstrate that the current data set plus other relevant available data sets are representative and provide an adequate basis for estimating emissions for other farms that are not in the current dataset.
- In conjunction with USDA, understand the latest science related to process-based models<sup>2</sup> for each AFO sector and determine what additional research might be needed to further develop and validate results generated by these models. The key will be to ensure they produce data of adequate quality that EPA and states can rely on, but are simple enough for use by farmers and others who have to generate and review the emissions data.<sup>2</sup>

The scoping study, which is expected to take about four months, will produce a work plan that will describe activities, responsibilities, resources, and schedules for developing appropriate EEMs. The timeline and resources for implementation of the work plan are addressed below.

OECA will be consulted throughout the process to ensure the products generated from the activities above are consistent with what is needed to comply with the Air Compliance Agreement. This consultation is particularly important with respect to ORD and OAR's attempts to address the SAB's recommendation that EPA not extrapolate the EEMs beyond the farms where the NAEMS data were collected.

### **Challenges**

- One key challenge will be to obtain agreement from all relevant stakeholders regarding the selected approach for estimating emissions.
  - The SAB would prefer EPA develop and/or use full process-based models<sup>2</sup> for all AFO sectors in the near-term, but this may not be possible.
  - Environmental organizations will be skeptical of any methods or models developed by the AFO industry that EPA endorses for estimating AFO emissions.
  - USDA acceptance of EPA's proposed approach for estimating AFO emissions

---

<sup>2</sup> Development of process-based models will not be part of the scope of the proposed effort herein. ORD has separately supported work on process-based models through STAR grants – see, for example, “Atmospheric Ammonia Emissions from the Livestock Sector: Development and Evaluation of a Process-based Modeling Approach”, EPA Grant Number RD834549.

will take a great deal of work and will probably require some compromises. Without USDA acceptance or neutrality, any EPA-generated method to estimate AFO emissions may not be used by the entire industry. All Air Compliance Agreement participants must adhere to the EPA's final EEMs. Any participant who challenges the EEMs loses its release and covenant not to sue under the Agreement.

- Timelines to generate products for the EEMs are difficult to estimate given the large data sets and need to better understand the status and accuracy of any existing process-based models. The timeline may also be significantly impacted if the SAB will again review the EEMs prior to final publication. Management will need to decide whether to submit the EEMs for a second SAB review.
- The EPA's goal is to complete much of this work with in-house resources. Existing ORD technical staff are only available to provide some limited level of oversight, advice and some high level analyses, but, these in-house resources are insufficient to address the full scope of the effort required. The anticipated resource needs (e.g., additional staff and/or contractors) to implement the work plan are described below:
  - A 4-year term employee (not a post-doc) with appropriate technical expertise (GS 12/13) will be needed to oversee the effort's day-to-day operations, which includes the EEMs and process-based models development. This hire is proposed to be jointly funded by all to minimize personnel, compensation and benefits implications on any one office. ORD would agree to provide the required office space, computer and supervisor for the hired employee<sup>3</sup>.
  - If additional databases or emissions estimating methods relevant to the project are identified, up to \$150,000 in contract funds (either science and technology (S&T) or environmental programs and management) will be needed to collect them for analysis. OAR and ORD will reach out to USDA to determine if they have any additional databases we can use.
  - \$80,000 in S&T funds per year for 2 years will be needed to support two student contractors to help with data analysis and processing.
  - A small percentage of time of existing senior technical ORD staff will be needed to provide oversight and guidance.
  - A small percentage of time of existing policy OAR staff will be needed to provide oversight and guidance.
- OAR is currently working with USDA to identify BMPs and control technologies to

---

<sup>3</sup> Use of an IPA to augment the activities of the student contractors and FTE for specific AFO sectors will be pursued.



minimize key air pollutants from the animal sector. OAR and ORD also participate in an inter-agency ammonia work group with USDA with a goal of identifying specific ammonia mitigation opportunities.

**Draft Implementation Plan** *(Timeframes subject to change once project is initiated)*

In support of tasks 1 and 2, a screening analysis of all the pollutants and sectors will be conducted to help focus the overall the implementation of the effort. Some pollutants even at their maximum emissions rates may not rise to a level of concern and therefore development of an EEM may be unwarranted. Conversely, some sectors/pollutants may have large emissions profiles and should be completed early on to assist air quality planners.

**Task 1:** *Sectors and pollutants already reviewed by the Science Advisory Board (This will take between 6-8 months after the hire and student contractors are on-board; also up to \$50,000 to collect data generated since the NAEMS study was completed)*

- Significant efforts have already been completed for several of the animal husbandry sectors (broilers, swine and dairy open sources). The proposed hire and student contractors (costs indicated above) would be initially tasked to review all the existing data and the comments from SAB, do any additional analyses of these data and any other relevant data generated by universities and others since the NAEMS study was completed.
- Once all the data are collected and organized, the team will work to evaluate any gaps in the data and then proceed to generate draft emission estimating methodologies (EEMs) for the pollutants of concern (PM, VOCs, hydrogen sulfide and ammonia) with appropriate uncertainty information. The goal will be to generate methods that are simple to understand and to the extent possible can be used across the country to generate emissions data for inventories and other purposes.
- These methods would be tested to determine whether they can reproduce meaningful emissions estimates and eventually be used for inventories.
- These revised EEMs will be provided to all the appropriate stakeholders and possibly the Science Advisory Board for their review and comments. The team will review all the comments and modify the EEMs based on the comments. Internal discussions will occur between OAR, ORD and OECA to resolve potentially competing comments.
- Once a final version of the EEMs is produced, OAR will proceed to distribute them as required via web sites and other means.

**Outputs**

- Rerun statistical analysis to address comments from SAB on broiler animal feeding operations, and lagoons and basins at swine and dairy animal feeding operations.
- Complete revision of EEMs.

**Task 2:** *Sectors not included in SAB review where less data analyses have been completed (6- 12 months from completion of above activity with some potential overlap if time permits; \$100,000 to collect data generated since the NAEMS study was completed)*

- The hire and student contractors with input from the senior research staff will analyze all the NAEMS data for the animal husbandry sectors (egg layers, swine, and dairy barns) where less analysis has been done. The team will organize the data, identify data that can't be used, and will incorporate any new data into an integrated data file.
- The next step will be to identify the key data gaps for each of the sectors in order to determine whether there is sufficient information to produce an emissions estimation method for the animal husbandry sector. If it is not sufficient, a detailed data needs document will be generated to identify what needs to be done before the EEM can be generated.
- For those sectors where EEMs can be developed, data will be reduced and analyzed to produce a draft emission estimation method for the pollutants of concern (PM, VOCs, hydrogen sulfide and ammonia) with appropriate uncertainty information. The goal will be to generate methods that are simple to understand and to the extent possible can be used across the country to generate emissions data for inventories and other purposes.
- These methods would be tested to determine whether they can reproduce meaningful emissions estimates and eventually be used for inventories.
- These revised EEMs will be provided to all the appropriate stakeholders and possibly the Science Advisory Board for their review and comments. The team will review all the comments and modify the EEMs based on the comments. Internal discussions will occur between OAR, ORD and OECA to resolve potentially competing comments.
- Once a final version of the EEMs is produced, OAR will proceed to distribute them as required via web sites and other means.
- After development of final EEMs, produce a user interface and documentation that make the EEMs user friendly. This will enable producers to determine their compliance requirements.

### Outputs

- Run statistical analysis to produce EEMs for egg-layers, swine and dairy confinement houses.
- Complete EEMs.

**NAEMS/Animal Feeding Operations:  
Emissions Estimating Methodology Development**  
Background for Janet McCabe  
March 24, 2016

**Purpose:** Decision meeting to obtain concurrence from ORD, OAR and OECA on outstanding funding issues for the joint workplan for completion of the National Air Emissions Monitoring Study (NAEMS) emissions estimating methodologies (EEMs).

**Proposed Joint OAR/ORD Approach for Completion of NAEMS**

- Two primary actions are jointly recommended by OAR and ORD staff to complete the EPA's obligations under the NAEMS:
  1. Develop and implement EEMs that can be used to quantify farm-by-farm emission estimates; and
  2. Develop and promote the use of best management practices (BMPs).
- Revised workplan (reflecting January 21, 2016 decisions) (*attached*)
  - Task 1: Perform additional analyses pursuant to SAB recommendations using NAEMS data, along with relevant data generated by academia and others since NAEMS was completed. Revised EEMs will be provided to appropriate stakeholders and possibly to SAB for review.  
Timeline: 6-8 months, plus an additional 12 months for SAB review.
  - Task 2: Identify utility of data to perform analyses of NAEMS data for animal feeding operation (AFO) sectors where less analysis has been done to date. The goal is to generate methods that may be applied to AFOs across the U.S.  
Timeline: 6-12 months following completion of Task 1.
- Existing ORD technical staff are available to provide oversight, advice and some high level analyses; however, these in-house resources are insufficient to address the full scope of the required effort.
- Resource needs include:
  - 4-year term employee (not a post-doc) at the GS-12/13 level to perform and oversee analyses of data to develop EEM for remaining categories and; if time allows, initiate work on outstanding issues related to process-based models (FTE and associated resources could be solely or partially provided by ORD, OAR or OECA );
  - \$150K (S&T or EPM funds) to identify and secure additional databases for analyses and model development; and
  - \$160K (S&T funds) to support two student contractors for data analysis and processing.

**Outstanding Issues**

- FTE (4-year term minimum) for position to coordinate all activities needs to be addressed before work can resume – with a 4-6 month startup lag for hiring. FTE can be provided jointly by ORD, OAR and OECA as the expertise would benefit each organization.
- The workplan identified \$150k for procurement of additional databases, if necessary, as recommended by the SAB. Some data have been acquired. It has not been determined that the additional data sets will be needed.
- Once decisions are made with regard to FTE and funds, the process to bring student contractors on board could be initiated.

### **Current Status and Ongoing Activities**

- OAR is currently developing the AFO BMP document in-house, and we anticipate completion in late 2016 or early 2017.
- ORD is committed to identifying some funding for one or two student contractors to support EEM development within existing ORD funding. This does not include funds to procure additional databases for analyses, process-based model development, or FTE.
- Several AFO-related petitions have been filed under CAA section 108/109 and 111. These petitions have been placed on hold pending the outcome of the NAEMS.
- The U.S. EPA Office of the Inspector General plans to begin an evaluation of the agency's efforts to evaluate air emissions from animal feeding operations as part of their FY 2016 annual plan.

### **Background**

- In the late 1990's, the agency identified model farms for AFOs for the purpose of estimating emissions. The approach used emission factors developed from limited data. USDA and the AFO industry voiced concerns about the scientific basis for the model AFOs and emission factors.
- In 2002, EPA and USDA commissioned the National Academy of Science (NAS) to evaluate the current knowledge of and approaches for estimating AFO emissions. NAS provided their recommendations in a 2003 report.
- The report acknowledged the limited emission data for AFOs and recommended that additional studies be conducted. NAS also recommended development of a process-based model as a long-term research need, but acknowledged the likely need for an interim emissions estimation approach and provided corresponding short-term research recommendations.
- NAS's recommendations coupled with input from several AFO sectors prompted the development of the 2005 Air Compliance Agreement (led by OECA), which included the NAEMS (led by OAR).
- As part of the agreement, all participants agreed to use final EEMs to estimate their emissions and comply with applicable CAA, CERCLA, and EPCRA obligations following EPA's publication of final EEMs.
- Using a statistical approach (rather than a "process-based" approach) to develop EEMs, a team comprised of representatives from OAR and ORD, along with contractor support, published draft EEMs for broiler houses and swine and dairy open sources (waste lagoons and basins) in early 2012.
- SAB reviewed the drafts in 2012/2013 and made the three following overarching recommendations and about 40 specific recommendations:
  1. SAB strongly recommends that EPA develop a process-based modeling approach to predict air emissions from broiler confinement facilities and swine and dairy lagoons and basins;
  2. EPA should not apply its current statistical-approach EEMs for estimating emissions beyond those farms studied during the NAEMS; and
  3. SAB acknowledges that EPA may need to apply statistical approaches to assess emissions in the interim while it is developing and evaluating process-based models.
- At a January 21, 2016 meeting, ORD, OAR, and OECA agreed to put the process-based model work on hold and focus on completing the EEMs and BMPs.

**To:** Koerber, Mike[Koerber.Mike@epa.gov]  
**From:** Long, Pam  
**Sent:** Mon 3/28/2016 9:16:03 PM  
**Subject:** FOR YOUR REVIEW AND OAQPS CLEARANCE - OMB Package - Final Rule: Fine Particulate Matter NAAQS SIP Requirements (SAN 5477)  
[Post-it Final PM2.5 Impl rule 3-25-16.docx](#)  
[5477 Transmittal Memo 3-25-16.docx](#)  
[ActionMemo SAN5477 PM2.5 SIP RR 3-25-2016.docx](#)  
[EO12866 PM2.5 NAAQS Implementation 2060-AQ48 Final PreambleRule 20160328.docx](#)  
[Draft Comm Plan PM2.5 Impl rule 3-25-16.docx](#)  
[Draft Fact Sheet Final PM2.5 Impl rule 3-25-16.docx](#)

Attached for your review and clearance is the OMB package for the final rule - Fine Particulate Matter NAAQS SIP Requirements. It incorporates Debbie's edits on the 3/18 version. We are not producing the final RLSO to accompany the clean version right now until we receive the final edits from the 4<sup>th</sup> floor unless you do want it now. Just let us know. We are preparing the CFR RLSO document(s) before we submit the OMB package to WOPs for OAR.

Attached are:

Post it Note

OMB Transmittal Memo

Action Memo

Clean Preamble/Rule

Draft Fact Sheet

Draft Communication Strategy

Let me know if you have any questions.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

MAR 30 2016

OFFICE OF  
AIR AND RADIATION

**MEMORANDUM**

**SUBJECT:** Request for Further ORD Assistance to Complete the National Air Emissions Monitoring Study (NAEMS)

**FROM:** Janet G. McCabe *JGMcC*  
Acting Assistant Administrator

**TO:** Thomas A. Burke  
Deputy Assistant Administrator  
Office of Research and Development

I am writing to request further assistance from the Office of Research and Development (ORD) to complete the National Air Emissions Monitoring Study (NAEMS). Due to the highly scientific nature of the work, ORD leadership and technical assistance are needed to respond to recent recommendations from EPA's Science Advisory Board (SAB) on our draft emission estimation methods (EEMs) for a few animal sectors, develop final EEMs for these sectors, and develop EEMs for the remaining animal sectors. I ask that ORD commit the resources and expertise necessary to execute these tasks in a timely manner.

By way of background, in 2005, the Office of Enforcement and Compliance Assessment (OECA) entered into an Air Compliance Agreement with the animal feeding operations industry which called for the Office of Air and Radiation (OAR) to initiate and oversee the NAEMS. OAR assembled a team with scientists and representatives from ORD, U.S. Department of Agriculture (USDA), an environmental organization, and academia, and relied on ORD's expertise to assist in developing the monitoring plan for the study. The study began in June 2007 and concluded in early 2010, and the NAEMS data were submitted to the EPA by August 2010. OAR then identified a team of EPA staff that included scientists from ORD to develop and document the first set of draft EEMs.

Given interest by a number of stakeholders, in early 2012, OAR turned to the SAB for advice. Specifically, we submitted to the SAB our documents containing the draft EEMs for broiler confinement houses and swine and dairy open sources (lagoons and basins) for review. The SAB issued its final report and recommendations to the agency in April 2013.

We have been working over the past several years to address some of the SAB recommendations. For example, we have acquired additional data sets, and reanalyzed the NAEMS data in accordance with the recommendations. However, there are certain recommendations that are heavily weighted on science and require ORD's technical expertise.

Consequently, I am requesting that ORD take a leadership role in responding to the scientific questions/recommendations raised by the SAB. After much discussion between OAR, ORD, and OECA staff, a path forward to finalizing the EEMs has been developed that relies on ORD's expertise. Specifically, OAR, ORD, and OECA staff collectively developed a work plan (attached) which outlines an approach for moving forward. Two primary actions are contained in that plan:

1. Develop and implement approaches that can be used to quantify farm-by-farm emission estimates, and
2. Develop and promote the use of best management practices (BMPs).

I believe that ORD leadership is needed for this first action, which will then allow us to complete the EPA's obligations pursuant to the Air Compliance Agreement. With respect to the second action, you should know that OAR has taken the lead in developing a BMP document which we intend to complete by the end of this year or early next year.

Thank you for your consideration of this request. I am hoping that OAR and ORD will work together on both actions identified in the work plan, as necessary, and will engage the USDA as an active partner.

Attachment



**To:** Burke, Thomas[Burke.Thomas@epa.gov]  
**Cc:** Walker, Jean[Walker.Jean@epa.gov]; Mazza, Carl[Mazza.Carl@epa.gov]; Koerber, Mike[Koerber.Mike@epa.gov]  
**From:** Matthews, Barbara  
**Sent:** Wed 3/30/2016 1:57:23 PM  
**Subject:** Request for Further ORD Assistance to Complete the National Air Emissions Monitoring Study (NAEMS)  
[OAR-16-000-6250 Memo to Thomas A. Burke.pdf](#)

Attached is PDF copy of a signed memo from Janet McCabe. The original is being sent to you through interoffice mail.

Barbara M. Matthews

SEE Program Enrollee

Room 5435C, WJC-North

Mail Code 6101A

Office: 202-564-7418+